IN THE CLAIMS:

What is claimed is:

1. A method of screening a subject for Alzheimer's disease comprising:

detecting the presence or absence of at least one or more markers linked to Alzheimer's disease, wherein the presence of said marker indicates that the subject is afflicted with or at risk of developing Alzheimer's disease, and wherein said marker is selected from the group consisting of D12S1042, D12S1090, D12S1057, D12S1632 and markers within four centimorgans thereof.

2. The method according to claim 1, wherein said marker is linked to age of onset of Alzheimer's disease.

3. The method according to claim 1, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

4. The method according to claim 1, wherein said method is a diagnostic method.

5. The method according to claim 1, wherein said method is a prognostic method.

6. The method according to claim 1, wherein said subject is human.

7. A method for diagnosing a subject as having Alzheimer's disease, or as having a predisposition to Alzheimer's disease comprising:

determining the presence or absence of an allele of a polymorphic marker in the subject, wherein (i) the allele is associated with a phenotypic marker of Alzheimer's disease, and wherein (ii) the polymorphic marker is within a segment selected from the group consisting of:

a segment of chromosome 12 bordered by D12S1042 and D12S1090;

a segment of chromsome 12 within four centimorgans of D12S1057; and

a segment of chromosome 12 within four centimorgans of D12S1632.

8. The method according to claim 7, wherein said determining the presence or absence of an allele of a polymorphic marker in the subject is performed utilizing DNA or RNA.

9. The method according to claim 7, wherein said marker is linked to age of onset of Alzheimer's disease.

10. The method according to claim 7, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

11. The method according to claim 7, wherein said method is a diagnostic method.

12. The method according to claim 7, wherein said method is a prognostic method.

13. The method according to claim 7, wherein said Parkinson's disease is early-onset Parkinson's disease.

14. The method according to claim 7, wherein said subject is human.

15. An oligonucleotide primer for amplification of an allele which is associated with Alzheimer's disease, wherein said allele is located at a locus in a region selected from the group consisting of:
a segment of chromosome 12 bordered by D12S1042 and D12S1090;
a segment of chromsome 12 within four centimorgans of D12S1057; and
a segment of chromosome 12 within four centimorgans of D12S1632.

16. The oligonucleotide primer of claim 15, wherein said primer is from 5 to 50 nucleotides in length.

17. The oligonucleotide primer of claim 15, wherein said allele is linked to age of onset of Alzheimer's disease.

18. The oligonucleotide primer of claim 15, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

19. An assay for detecting a gene related to an age of onset disorder comprising:

providing a biological sample comprising genomic DNA from a patient suspected of having or at risk for developing said age of onset disorder;

using a probe directed toward a region of a polymorphic marker in the subject, wherein (i) the marker is associated with a phenotypic marker of Alzheimer's disease, and wherein (ii) the polymorphic marker is within a segment selected from the group consisting of:

a segment of chromosome 12 bordered by D12S1042 and D12S1090;

a segment of chromsome 12 within four centimorgans of D12S1057; and

a segment of chromosome 12 within four centimorgans of D12S1632; and

detecting duplications in the region of the genomic sequence of the group of chromosomes listed above.

20. The assay of claim 19, where said age of onset disease is Alzheimer's disease.

21. The assay of claim 19, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

22. A method for diagnosing a subject as having Alzheimer's disease, or as having a predisposition to Alzheimer's disease comprising:

determining the presence or absence of an allele of a polymorphic marker in the subject, wherein (i) the allele is associated with a phenotypic marker of Alzheimer's disease, and wherein (ii) the polymorphic marker is within a segment of chromosome 12 within four centimorgans of D12S1042, D12S1090, D12S1057 or D12S1632.

23. The method according to claim 22, wherein said determining the presence or absence of an allele of a polymorphic marker in the subject is performed utilizing DNA or RNA.

24. The method according to claim 22, wherein said allele is linked to age of onset of Alzheimer's disease.

25. The method according to claim 22, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

26. The method according to claim 22, wherein said method is a diagnostic method.

27. The method according to claim 22, wherein said method is a prognostic method.

28. The method according to claim 22, wherein said subject is human.

29. A method of screening a subject for Alzheimer's disease comprising:

detecting the presence or absence of at least one or more markers linked to Alzheimer's disease, wherein the presence of said marker indicates that the subject is afflicted with or at risk of developing Alzheimer's disease, and wherein said marker is selected from a marker near an LRP1 locus.

30. The method according to claim 29, wherein said marker is linked to age of onset of Alzheimer's disease.

31. The method according to claim 29, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

32. The method according to claim 29, wherein said marker is located toward the 3' end of the LRP1 gene.

33. The method according to claim 29, wherein said marker is within three centimorgans of D121632.

34. The method according to claim 29, wherein said method is a diagnostic method.

35. The method according to claim 29, wherein said method is a prognostic method.

36. The method according to claim 29, wherein said subject is human.

37. A method for diagnosing a subject as having Alzheimer's disease, or as having a predisposition to Alzheimer's disease comprising:

determining the presence or absence of an allele of a polymorphic marker in the subject, wherein (i) the allele is associated with a phenotypic marker of Alzheimer's disease, and wherein (ii) the polymorphic marker is within a segment selected from an LRP1 gene.

38. The method according to claim 37, wherein said determining the presence or absence of an allele of a polymorphic marker in the subject is performed utilizing DNA or RNA.

39. The method according to claim 37, wherein said marker is within three centimorgans of D121632.

40. The method according to claim 37, wherein said marker is linked to age of onset of Alzheimer's disease.

41. The method according to claim 37, wherein said Alzheimer's disease is late-onset Alzheimer's disease.

42. The method according to claim 37, wherein said marker is located toward the 3' end of the LRP1 gene.